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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,039	12/19/2000	Anthony Mauro	990502	9961

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QUALCOMM INCORPORATED
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EXAMINER	
ABRISHAMKAR, KAVEH	
ART UNIT	**PAPER NUMBER**
2131	

NOTIFICATION DATE	DELIVERY MODE
11/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/742,039	MAURO, ANTHONY	
	Examiner	Art Unit	
	Kaveh Abrishamkar	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/22/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2007 has been entered.

2. Claims 1-33 were cancelled and claims 34-58 were added per the received amendment.

3. Claims 33-58 are currently pending consideration.

Information Disclosure Statement

4. A signed and initialed copy of the Applicant's IDS form 1449, received September 22, 2007, is attached to this Office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 34-35, 39-40-42, 46-49, and 53-56 rejected under 35 U.S.C. 102(b) as being anticipated by Benyassine's "ITU-T Recommendation G.729 Annex B: A Silence Compression Scheme for Use with G.729 Optimized for V.70 Digital Simultaneous Voice and Data Applications," hereinafter Benyassine.

Regarding claim 1, Benyassine discloses:

A discontinuous transmission controller, comprising:

a vocoder for generating active vocoder frames from a digitized audio signal at a predetermined output rate if speech is present (page 65, column 1, paragraph 2, lines 1-18), for generating inactive vocoder frames during periods of speech inactivity (page 65, column 1, paragraph 2, lines 18-23), wherein the inactive vocoder frames are not transmitted to a receiver (page 65, column 1, paragraph 2, lines 18-23: *choose to send nothing*), and for generating transition vocoder frames during transitions from speech activity to speech inactivity (page 65, column 1, paragraph 2, lines 18-23: *generate silence insertion descriptor (SID) frames which is used to generate background noise*), said transition vocoder frames comprising comfort information (page 67, column 2, paragraph 1, lines 7-10).

Claim 35 is rejected as applied above in rejecting claim 34. Furthermore, Benyassine discloses:

The controller of claim 34, wherein the comfort information comprises background noise information (page 67, column 2, paragraph 1, lines 7-10), *wherein the comfort noise comprises output which is perceptively equivalent to background noise.*

Regarding claim 39, Benyassine discloses:

determining a speech activity level in a received digitized audio signal (page 67, column 1, paragraphs 3-5), *wherein a decision is made based on the speech activity level*;

generating a control signal based on the determined speech activity level (page 67, column 1, paragraph 10, lines 1-4), *wherein an output signal is generated*;

generating active vocoder frames in a transmitted if said control signal indicates active speech activity (page 65, column 1, paragraph 2, lines 1-18);

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity (page 65, column 1, paragraph 2, lines 18-23: *generate silence insertion descriptor (SID) frames which is used to generate background noise*);

generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity (page 65, column 1, paragraph 2, lines 18-23), wherein the inactive vocoder frames are not transmitted to a receiver (page 65, column 1, paragraph 2, lines 18-23: *choose to send nothing*).

Claim 40 is rejected as applied above in rejecting claim 39. Furthermore, Benyassine discloses:

The method of claim 39, wherein said transition vocoder frames comprise comfort information (page 67, column 2, paragraph 1, lines 7-10).

Claim 41 is rejected as applied above in rejecting claim 40. Furthermore, Benyassine discloses:

The method of claim 40, wherein said comfort information comprises background noise information (page 67, column 2, paragraph 1, lines 7-10), *wherein the comfort noise comprises output which is perceptively equivalent to background noise.*

Claim 42 is rejected as applied above in rejecting claim 39. Furthermore, Benyassine discloses:

The method of claim 39, wherein the speech activity level is a voice activity level (page 67, column 1, paragraph 10, lines 1-4), *wherein an output signal is generated.*

Regarding claim 46, Benyassine discloses:

An apparatus for controlling discontinuous transmissions, comprising:

means for determining a speech activity level in a received digital audio signal (page 67, column 1, paragraphs 3-5), *wherein a decision is made based on the speech activity level;*

means for generating a control signal based on the determined speech activity level (page 67, column 1, paragraph 10, lines 1-4), *wherein an output signal is generated*;

means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity (page 65, column 1, paragraph 2, lines 1-18);

means for generating transition frames in the transmitter if said control signal in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity (page 65, column 1, paragraph 2, lines 18-23: *generate silence insertion descriptor (SID) frames which is used to generate background noise*); and

means for generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech (page 65, column 1, paragraph 2, lines 18-23), wherein the inactive vocoder frames are not transmitted to a receiver (page 65, column 1, paragraph 2, lines 18-23: *choose to send nothing*).

Claim 47 is rejected as applied above in rejecting claim 46. Furthermore, Benyassine discloses:

The apparatus of claim 46, wherein said transition vocoder frames comprise comfort information (page 67, column 2, paragraph 1, lines 7-10).

Claim 48 is rejected as applied above in rejecting claim 47. Furthermore, Benyassine discloses:

The apparatus of claim 47, wherein said comfort information comprises background noise information (page 67, column 2, paragraph 1, lines 7-10), *wherein the comfort noise comprises output which is perceptively equivalent to background noise.*

Claim 49 is rejected as applied above in rejecting claim 46. Furthermore, Benyassine discloses:

The apparatus of claim 46, wherein the speech activity level is a voice activity level (page 67, column 1, paragraph 10, lines 1-4), *wherein an output signal is generated.*

Regarding claim 53, Benyassine discloses:

A computer-readable medium comprising instructions for controlling discontinuous transmissions, said instructions being executable by at least one computer to:

determine a speech activity level in a received digital audio signal (page 67, column 1, paragraphs 3-5), *wherein a decision is made based on the speech activity level*;

generate a control signal based on the determined speech activity level (page 67, column 1, paragraph 10, lines 1-4), *wherein an output signal is generated*;

generate active vocoder frames in a transmitter if said control signal indicates active speech activity (page 65, column 1, paragraph 2, lines 1-18);

generate transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity (page 65, column 1, paragraph 2, lines 18-23: *generate silence insertion descriptor (SID) frames which is used to generate background noise*); and

generate inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity (page 65, column 1, paragraph 2, lines 18-23), wherein the inactive vocoder frames are not transmitted to a receiver (page 65, column 1, paragraph 2, lines 18-23: *choose to send nothing*).

Claim 54 is rejected as applied above in rejecting claim 53. Furthermore, Benyassine discloses:

The computer-readable medium of claim 53, wherein said transition vocoder frames comprise comfort information (page 67, column 2, paragraph 1, lines 7-10).

Claim 55 is rejected as applied above in rejecting claim 54. Furthermore, Benyassine discloses:

The computer-readable medium of claim 54, wherein said comfort information comprises background noise information (page 67, column 2, paragraph 1, lines 7-10), *wherein the comfort noise comprises output which is perceptively equivalent to background noise.*

Claim 56 is rejected as applied above in rejecting claim 53. Furthermore, Benyassine discloses:

The computer-readable medium of claim 53, wherein the speech activity level is a voice activity level (page 67, column 1, paragraph 10, lines 1-4), *wherein an output signal is generated.*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 36-37, 43, 45, 50, 52, and 57-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benyassine's "ITU-T Recommendation G.729 Annex B: A Silence Compression Scheme for Use with G.729 Optimized for V.70 Digital Simultaneous Voice and Data Applications," hereinafter Benyassine, in view of Maggenti et al. (U.S. patent 6,477,150).

Regarding claims 36-37, 43, 45, 50, 52, and 57-58, Benyassine does not explicitly disclose generating a state vector, incrementing the state vector for each active or transition vocoder frame, and then using the state vector to encrypt each active and transition vocoder frame. Maggenti teaches generating a state vector (column 43, lines 41--44), and incrementing the state vector for each received data packet (column 45,

lines 4-12), and then uses the state vector to encrypt frames (column 45, lines 7-11). The received data packets in Benyassine would only be the transition and the active vocoder frames since the inactive ones are not sent. It would have been obvious to generate, increment and use a state vector to encrypt the packets "to help insure the uniqueness of the crypto SV among users" (Maggenti: column 43, lines 61-63).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KA
11/21/2007 11/21/07